

REMARKS

INTRODUCTION:

In view of the foregoing, claims 1-14 have been amended and claims 15-19 have been added. No new matter has been presented.

Reconsideration of the allowability of the claims is respectfully requested.

Claims 1-19 are pending.

AMENDMENT TO THE CLAIMS:

The independent claims have been amended at least to point out that the displaying of the screen protecting image data can be performed irrespective of an operational mode of a main computer apparatus.

As pointed out below, Lundberg, U.S. Patent No. 5,738,527, is particularly relied upon to disclose screen savers, as well as being used to provide the motivation for modifying Kanno, U.S. Patent No. 5,602,567. Lundberg specifically points out that such screen savers are only intended to be utilized in a conventional manner, i.e., by storage of such programs on an internal storage device or peripheral storage device of a main computer, and ran on the main computer, with the generated screen saver data being then finally sent to the display. Thus, any display of screen saver information by the display of Kanno or even a combination of Kanno and Lundberg would necessarily be dependent on an operational state of the main computer.

The independent claims have been specifically amended to at least point out this difference.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1-14 stand rejected under 35 U.S.C. §103(a) as being obvious over Kanno, U.S. Patent No. 5,602,567, in view of Lundberg, U.S. Patent No. 5,738,527. This rejection is respectfully traversed.

By way of review and as an example, independent claim 1 sets forth:

"A display apparatus, comprising:

a display screen displaying thereon image data sent from a main apparatus;

a memory unit storing therein screen protecting image data; and
a display control unit operable to control the screen protecting image data stored in said memory unit to be displayed on said display screen irrespective of an operation mode of the main apparatus,

wherein said display screen, said memory unit, and said display control unit are contained in a frame that is independent from a frame containing the main apparatus."

The previous Office Action set forth that Kanno discloses a display with a control unit 14 and memory 11 and 12, with the control unit 14 and memory 11 and 12 being in an independent frame separate from a computer frame. Thereafter, the Office Action pointed out that although Kanno failed to disclose a screen protecting data in the memory 11 and 12, Lundberg disclosed that a screen saver program can be stored in memory, and that a combination of Kanno and Lundberg would disclose the presently claimed invention.

Specifically, the Office Action recites: "[i]t would have been obvious to one of ordinary skill in the art, at the time of the invention, to utilize the screensaver program software taught by Lundberg into the system of Kanno *because it would allow a user to create his or her own custom database of units of information for display* (see col. 1, lines 40-43)." (Emphasis added).

In short, Lundberg merely discloses an improved screen saver program. The screen saver discussed in Lundberg provides "a customizable screen saver program that can display information or questions and score the user's performance." Lundberg in col. 1, lines 25-27.

Regarding how or where the screen saver in Lundberg is saved, Lundberg merely states that "it shall also be understood that the screen saver program of the present invention is executed in system 10 in a conventional manner, including storage on the mass storage unit of the system 10 or any network it is connected to." Lundberg in col. 4, lines 1-3.

Thus, the basis of the outstanding rejection would appear to be that since Lundberg discloses a screen saver, and since Kanno discloses a display with a control unit and associated memory, it would have been obvious to modify the control unit and memory in Kanno to include a screen saver.

As pointed out previously, both Kanno and Lundberg actually teach away from the same, since both references use a computer and associated memory to control and store screen saver programs, with the computer transmitting the screen saver information to the display. Thus, the cited references can only disclose saving screen saver information in a main apparatus from a memory, in the main apparatus, storing the screen saver protecting image data.

In addition, there is no disclosure in either Kanno or Lundberg that the display disclosed in Kanno is physically configurable to display data stored in the cited RAM of the display frame. Thus, even if the screen saver program described in Lundberg were stored in the RAM of the display from of Kanno, there is no indication that the same would even work. Further, it would appear that the controller in Kanno is merely a conventional controller for controlling a display based solely upon received image signals from a main computer apparatus, and thus, not operable to run a screen saver program or present screen saver signals to the display without input from the main computer apparatus. Even if a screen saver program were installed in memory in the display of Kanno it would be impossible for the display to run the screen saver program or display a screen saver based on the same.

Further, to set forth a prima facie obviousness rejection, the rejection itself must include evidenced motivation, particularly point out where that motivation is disclosed, and particularly point how that cited motivation would **lead** one skilled in the art to modify Kanno, proffered. Rather, the Office Action merely points out that Kanno discloses a display with an internal memory, and then indicates that because Lundberg teaches allowing a user to "create his or her own custom data base of units of information" in a screen saver program, it would have been obvious to include such a screen saver program in the display memory of Kanno.

However, the rejection fails to present the required motivation why one skilled in the art would have been led to make such a modification of Kanno or why one skilled in the art would have been led to set forth the presently claimed invention after absorbing the disclosures of both Kanno and lundberg. Only the present application provides this motivation.

The Office Action pointed out that what is important is what would have been obvious from both Kanno and Lundberg, rather than what each reference teaches individually. However, regardless of how the rejection is formulated, the same must still include **some motivation** for making the proffered combination. Neither Kanno nor Lundberg disclose or suggest, in any manner, that it would have been advantageous to have a screen saver program stored in memory within a display. As pointed out above, Lundberg specifically details that the screen saver program is operated in a conventional manner. Thus, even if both references were taken in their entirety, their collective teachings still would not provide motivation for the proffered combination.

Lastly, as noted above, the independent claims have been further amended to specifically require the display of the screen saver information to be operable irrespective of an

operational mode of the main computer.

FIG. 4 of the present application also illustrates an advantage of the present invention over conventional systems, with the screen saver being operational irregardless of an operational mode of the CPU. Conversely, in conventional systems the display of the screen saver was based on an operational mode of the computer CPU to be in a screen saver mode and active when screen savers were in operation.

Therefore, for at least the above, it is respectfully requested that this rejection of claims 1-14 be withdrawn and claims 1-14 be allowed. New claims 15-19 are at least allowable for their dependencies from allowable base claims.

CONCLUSION:

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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MARKED UP CLAIM AMENDMENTS

Please **AMEND** claims 1-14 and **ADD** new claims 15-19, as follows. The remaining claims have been reprinted as a convenience to the Examiner.

1. (THREE TIMES AMENDED) A display apparatus, comprising:
a display screen displaying thereon image data sent from a main apparatus;
a memory unit storing thereinto screen protecting image data; and
a display control unit operable to control [displaying] the screen protecting image data stored in said memory unit to be displayed on said display screen irrespective of an operation mode of the main apparatus [under such a condition that the main apparatus is not actually operated for a predetermined time period],

wherein said display screen, said memory unit, and said display control unit are contained in a frame that is independent from a frame containing the main apparatus.

2. (TWICE AMENDED) [A] The display apparatus [as claimed in] of claim 1, wherein:

said memory unit is a data rewritable memory, and the image protecting data is written into said memory unit from the main apparatus.

3. (TWICE AMENDED) [A] The display apparatus [as claimed in] of claim 1, wherein:

said display control unit provided on the side of said display apparatus comprises a main apparatus control unit transmitting a control signal, to control the operation mode of the main apparatus, to the main apparatus under such a condition that the main apparatus is not actually operated for [the] a predetermined time period.

4. (THREE TIMES AMENDED) An information processing system, comprising:
a main apparatus processing image data; and
a display apparatus displaying the image data sent from said main apparatus on a display screen; wherein:

said main apparatus includes:

an image data storage unit storing image data to be displayed; and

a main display control unit causing the image data stored in the image data storage unit to be displayed on the display screen; and

said display apparatus includes:

a memory unit storing therein screen protecting image data; and

a sub-display control unit [causing] operable to control the screen protecting image data stored in said memory unit to be displayed on the display screen irrespective of an operation mode of the main apparatus [under such a condition that said main apparatus is not actually operated for a predetermined time period;],

wherein said display screen, said memory unit, and said display control unit are contained in a frame that is independent from a frame containing the main apparatus.

5. (TWICE AMENDED) [An] The image processing apparatus [as claimed in] of claim 4, wherein:

said main apparatus further comprises an operation mode control unit changing a normal power consumption mode of said main apparatus into a low power consumption mode;

said display apparatus further comprises a main apparatus control unit transmitting a control signal, to control the operating mode of the main apparatus, to said main apparatus under such a condition that said main apparatus is not actually operated for [the] a predetermined time period; and

upon receipt of the control signal transmitted from said main apparatus control unit, the operation mode control unit changes the normal power consumption mode into the low power consumption mode.

6. (THREE TIMES AMENDED) A display apparatus, comprising:

a memory unit storing therein screen protecting data; and

a display control unit [causing] operable to control the screen protecting image data stored in said memory unit to be displayed on a display screen of the display apparatus irrespective of an operation mode of a main apparatus [under such a condition that a main apparatus is not actually operated for a predetermined time period],

whereby when no access is made from the main apparatus to the display apparatus for [the] a predetermined time period, an image produced from screen protecting image data is displayed on the display screen of the display apparatus, and

wherein said display screen, said memory unit, and said display control unit are contained in a frame that is independent from a frame containing the main apparatus.

7. (TWICE AMENDED) [A] The display control apparatus [as claimed in] of claim 6, wherein:

said memory unit is a data rewritable memory, and the image protecting data is written into the memory [means] unit from the main apparatus.

8. (TWICE AMENDED) [A] The display control apparatus [as claimed in] of claim 6, further comprising:

a main apparatus control unit transmitting a control signal, to control the operation mode of the main apparatus, to the main apparatus under such a condition that the main apparatus is not actually operated for the predetermined time period.

9. (TWICE AMENDED) A display apparatus, comprising:

a display screen displaying thereon image data sent from a computer main frame, the computer main frame including a central processing unit, random access memory, a graphic controller and video random access memory;

a rewritable memory unit, separate from the random access memory and separate from the video random access memory, storing thereinto screen protecting image data; and

a display control unit, separate from the graphic controller, operable to control [displaying] the screen protecting image data stored in said rewritable memory unit to be displayed on the display screen irrespective of an operation mode of the computer main frame [such that the computer main frame is not actually operated for a predetermined time period], said display control unit transmitting a control signal, to control the operation mode of the computer main frame, to the computer main frame to instruct the [the] computer main frame to not operate for [the] a predetermined time period,

wherein said display screen, said rewritable memory unit, and said display control unit are contained in a frame that is independent from the computer main frame.

10. (TWICE AMENDED) A display system for a portable computer, comprising:

a computer main frame including a central processing unit, a graphic controller, random access memory, and video random access memory; and

a display apparatus including:

a display screen displaying thereon image data sent from said computer main frame,

a screen protecting data random access memory, independent from the random access memory and the video random access memory of said computer main frame, storing screen protecting image data, and

a display control unit, independent from the central processing unit of said computer main frame, operable to control [displaying] the screen protecting image data stored in the screen protecting data random access memory to be displayed on the display screen irrespective of an operation mode of the computer main frame [under such a condition that said computer main frame is not actually operated for a predetermined time period];

wherein said display screen, said screen protecting data random access memory, and said display control unit are contained in a frame that is independent from said computer main frame.

11. (ONCE AMENDED) The display system [according to] of claim 10, wherein the display control unit changes from a normal power consumption mode into a low power consumption mode then provides a signal, to control an operation mode of the computer main frame, to the computer main frame instructing the computer main frame to enter a low power consumption mode.

12. (ONCE AMENDED) The display system [according to] of claim 11, wherein the screen protecting image data is a screen saving program.

13. (ONCE AMENDED) The display system [according to] of claim 10, wherein the screen protecting image data is a screen saving program.

14. (TWICE AMENDED) A method of controlling a display apparatus, comprising:
displaying image data on a display screen sent from a computer main frame,
storing screen protecting image data in a screen protecting data random access memory, independent from a random access memory and a video random access memory in said computer main frame, and
displaying the screen protecting image data stored in the screen protecting data random access memory on the display screen irrespective of an operation mode of the computer main frame [under such a condition that the computer main frame is not actually operated for a predetermined time period],

wherein said display screen and said screen protecting data random access memory are contained in a frame that is independent from said computer main frame.

15. (NEW) The display apparatus of claim 1, wherein the a display control unit is operable to control the screen protecting image data to be displayed on said display screen based on the operation mode of the main apparatus.

16. (NEW) The image processing apparatus of claim 4, wherein the sub-display control unit is operable to control the screen protecting image data to be displayed on the display screen based on the operation mode of a main apparatus.

17. (NEW) The display apparatus of claim 9, wherein the display control unit is operable to control the screen protecting image data to be displayed on the display screen based on the operation mode of the computer main frame.

18. (NEW) The display system of claim 10, wherein the display control unit is operable to control the screen protecting image data to be displayed on the display screen based on the operation mode of the computer main frame.

19. (NEW) The method of claim 14, further comprising:
displaying the screen protecting image data on the display screen based on the operation mode of the computer main frame.